

IN THE SPECIFICATION:

On page 1, after the title, insert the following heading:

BACKGROUND OF THE INVENTION

On page 1, lines 7-18, to page 2, lines 1-6, please amend the paragraphs to read as follows:

that are connected to each other by means of a connector device; and

- a signal generator device that is at least partially connected with the connector device and by means of which a signal is generated via movement of the pedal element, and.

~~use of the~~ The signal generator device makes use of a rotational-angle sensor that includes at least one Application Specific Integrated Circuit (ASIC) with a Hall-effect that produces an ASIC output voltage with a linear section for a floor pedal device. ~~for heavy motor vehicles,~~

~~more particularly trucks, buses, mobile cranes, and the like~~
~~that includes at least~~

~~• a pedal element and~~

~~• a base plate element~~

~~that are connected to each other by means of a connector~~
~~device so that they may move, whereby the~~ The pedal element
in the ~~connector~~ floor pedal device may be moved between an
idle position and a full-throttle position of an internal
combustion engine to create a signal corresponding to the
movement of the pedal element.

On page 3, after line 19, please insert the following
heading:

SUMMARY OF THE INVENTION

On page 4, delete lines 3 and 4 and delete the
following paragraph:

~~The object is achieved by the invention with the features of~~
~~Patent Claim 1 or 2 or 3 or 4.~~

On page 4, lines 9-22, to page 5, lines 1-2, please
amend the paragraphs to read as follows:

In the pedal device in Claim 1, an a first embodiment of the invention, the ASIC circuit with the Hall-effect and connected units is used for the creation of a pulse-width-modulated signal. The pulse-width-modulated signal is issued at selectable frequencies. This allows use of such a floor pedal device in heavy vehicles in Europe, the U.S., etc. without requiring special preparations. Not only an IC with a Hall-effect device, but rather up to eight ASIC circuits may be installed, each with its own Hall-effect device. This makes it possible to create, for example, eight independent pulse-width-modulated signals with corresponding selectable frequencies.

In a pedal device as in Claim 2, a second embodiment of the invention, the ASIC circuit with the Hall-effect device and the connected components are used to create an analog signal. It is possible here also to configure the rotational-angle sensor so that it contains eight ASIC

circuits with the pertinent Hall-effect devices so that several, e.g., eight, analog signals may be generated.

On page 5, lines 3-12, please amend the paragraphs to read as follows:

~~In a pedal device as in Claim 3~~ third embodiment of the invention, the ASIC circuit with the Hall-effect device and the connected components are used to create a switching signal. Here also, the use of several ASIC circuits with the pertinent Hall-effect devices allows the option of producing several, e.g., eight, independent signals.

~~In a pedal device as in Claim 4~~ fourth embodiment of the invention, the ASIC circuit with the Hall-effect device and the connected components are used to create balanced switching signals. Several signals, e.g., up to eight ASIC circuits with their Hall-effect devices allow the option of creating eight independent balanced switching signals.

On page 5, delete lines 13 and 14 as follows:

~~The object is achieved by the invention with the features of Patent Claim 5 or 6 or 7.~~

On page 5, lines 15-22, to page 6, lines 1-3, please amend the paragraphs to read as follows:

~~The~~ In this case, the advantages ~~combined here particularly~~ consist particularly of the fact that off-the-shelf rotational-angle sensors are used. This avoids additional cost for special production runs and the like. The rotational-angle sensors are eminently suited to recognize very small pedal angles.

In a ~~pedal device as in Claim 5~~ fifth embodiment of the invention, the ASIC circuit with the Hall-effect device and the connected components are used to produce two pulse-width-modulated signals with selectable frequencies via two channels. These independent pulse-width-modulated signals may each be fed to a motor control circuit and independently evaluated.

On page 6, lines 4-12, please amend the paragraphs to read as follows:

In a ~~pedal device as in Claim 6,~~ sixth embodiment of the invention, the ASIC circuit with the Hall-effect device and the connected components are used to create a first analog signal from one channel and a switching signal from a second channel. These two signals are fed to the motor control unit and processed accordingly.

In a ~~pedal device as in Claim 7~~ seventh embodiment of the invention, ~~the~~ two ASIC circuits, each with the Hall-effect device and the connected components are used to produce a second analog signal from the one channel, and to produce balanced signals from the other channel.

On page 8, lines 10-16, please amend the paragraph to read as follows:

When in the idle position, the pedal element may be disposed at a "floor angle" with respect to the base plate element in the idle position. The floor angle minus the pedal angle may be equal to a final-position angle. The floor angle may be 30°, 35°, or 40°, and the final-position angle may be 8°, 13°, or ~~23~~ 18°, so that the prescribed pedal angle of 22°

results. This allows for the pedal move easily through the pedal angle above the floor.

On page 8, delete lines 17 and 18 as follows:

~~The object is achieved by an application with the features of Patent Claims 18 or 19 or 20.~~

On page 9, delete lines 10-11, and insert the following paragraph and heading:

~~The invention will be described in greater detail in connection with the drawings. They show:~~

For a full understanding of the present invention, reference should now be made to the following detailed description of the preferred embodiments of the invention as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS;

On page 9, amend lines 12-19, please amend the paragraphs to read as follows:

Figure 1 shows a floor pedal with a rotational-angle sensor in exploded, perspective, schematic view₇.

Figure 2 shows a floor pedal with a rotational-angle sensor as in Figure 1 in a schematically illustrated side view₇.

Figure 3 shows a rotational-angle sensor per Figures 1 and 2 in schematic cutaway view₇.

Figure 4a shows a concept circuit diagram of a pulse-width arrangement with a signal-generating branch₇.

Figure 4b shows a circuit diagram with two channels of a pulse-width arrangement per Figure 4a mounted within a housing of a rotational-angle sensor per Figures 1 through 3₇.

On page 10, lines 1-20, to page 11, lines 1-10, please amend the paragraphs to read as follows:

Figure 5a shows a circuit diagram of a signal-generating branch of an analog signal generator;.

Figure 5b shows a circuit diagram with one channel of an analog signal generator per Figure 5a and an additional channel of a push-pull signal generator that are mounted within a housing of a rotational-angle sensor per Figures 1 through 3;.

Figure 6a shows a concept circuit diagram of a signal-generating branch of a push-pull signal generator;.

Figure 6b shows a circuit diagram with one channel of an analog signal generator per Figure 5a or 5b, and an additional channel of a push-pull signal generator per Figure 6a that are mounted within the housing of a rotational-angle sensor per Figures 1 through 3;.

Figure 7 shows a signal flow chart of a rotational-angle sensor per Figures 1 through 3 in dependence upon rotational angle;.

Figure 8 shows pulse-width-modulated signals emitted from the two channels of a pulse width arrangement according to Figure 4b;.

Figure 9a-d shows a representation of the individual steps to create a pulse-width-modulated signal in dependence upon on the pedal position; .

Figure 10 shows a switching signal produced by the push-pull signal generator per Figure 5b; and.

Figure 11a, b shows balanced opposing signals produced by the push-pull signal generator per Figures 6a and 6b.

On page 11, after line 10, please insert the following
heading and paragraph:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The preferred embodiments of the present invention will now
be described with reference to Figures 1-11 of the drawings.
Identical elements in the figures are designated with the
same reference numerals.

On page 25, after the last line, insert the following
paragraph:

There has thus been shown and described a novel floor
pedal with a rotation angle sensor which fulfills all the
objects and advantages sought therefor. Many changes,
modifications, variations and other uses and applications of
the subject invention will, however, become apparent to
those skilled in the art after considering this
specification and the accompanying drawings which disclose
the preferred embodiments thereof. All such changes,
modifications, variations and other uses and applications
which do not depart from the spirit and scope of the
invention are deemed to be covered by the invention, which
is to be limited only by the claims which follow.